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Regimes of transport (T-conduction) in IGM plasmas[1] MIKHAIL MEDVEDEV, Univ of Kansas — Galaxy clusters are the largest gravitationally bound systems of the universe. They contain large amounts (about 10% by mass, whereas 90% is dark matter) of thermal, $T \sim$ few keV, plasmas. Thermal conduction in this intergalactic medium (IGM) is thought to play crucial role in plasma dynamics but its value is debated. Unlike collisional plasmas, energy transport in magnetized collisionless or weakly collisional plasmas of the IGM exhibit various regimes with vastly different values of the thermal conduction coefficient. Here we discuss these regimes and their implication for galaxy cluster physics.

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